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Design

SCOTTISH PRODUCTS
p.17



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A Way Found Out

'I HAVE OFTEN THOUGHT', said the inventive English genius, Dr. Robert Hooke, 'that probably there might be a way found out, to make an artificial glutinous composition, much resembling, if not full as good, nay better, than that Excrement, or whatever other substance it be out of which, the Silk-worm wire-draws his clew'. That was in 1665, but two hundred years were to pass before the scientists' search for ways and means of producing textile fibres artificially began in earnest. Today, we may be thankful that their quest has been successful, for the demand for textiles now tends to outstrip nature's own resources of the cotton plantation, the silkworm and the sheep. Noteworthy among the new man-made fibres of today is one perfected in the laboratories of I.C.I.'s Nobel Division. Known as 'Ardil', this new fibre is soft and warm—and unattractive to moths. Fabrics containing it are endowed with a silky, smooth handle, and a friendly 'feel'. Equally important is the fact that 'Ardil' is available

in exactly the deniers and staple lengths that the textile manufacturer needs, while its price is low and stable.

A new I.C.I. factory, built at Dumfries at a cost of £3,000,000, is capable of manufacturing 'Ardil' staple at the rate of 20,000,000 lbs. a year. The staple goes to the spinners to be blended with other fibres and to be spun into yarn; the yarn then goes to weavers, who transform it into fine, soft fabrics, which can be made up into coats and suits, and warm, light-weight winter dresses, or—such is the versatility of 'Ardil'—into carpets, blankets and rugs.

'Ardil' is made, by a complex chemical process, from the protein of the groundnut, which grows abundantly in many parts of the Commonwealth. It is, therefore, not only an outstanding new material for the textile trade but an example of how I.C.I. research and development are helping to put the natural resources of the Commonwealth to fuller use.

Imperial Chemical Industries Limited



NUMBER 71
NOVEMBER 1954

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Design

Sales and snobs

AT A RECENT DISCUSSION on the perennial problem of responsibility for design in industry we listened to a famous retailer and a prominent manufacturer both claiming the buck, both insisting that his was the decisive voice. Admittedly the context favoured such attitudes, for good design rather than bad was under discussion, but five years ago the argument might have been very different; both would probably have sheltered behind public taste and popular demand, relying on the venerable escape clause that the customer is always right.

We still believe, as we have said before, that the market for design is like a three-tiered cake – the bottom and largest tier representing the uneducated taste of those who like what they know and buy what they see; the middle tier representing the more discriminating taste of those who know what they like; and the topmost and smallest tier representing the experimental ideas of the creative minority who know what they like so long as it is like nothing that they know.

In the course of time it is natural for the advanced ideas of this topmost tier to gain wider currency and to percolate downwards. But is it essential that during this passage these originally interesting designs should be so debased and distorted that when they reach the mass market they should become objects of ridicule and abuse? Some would say that this is inevitable in the familiar structure of society, that designs lose caste through multiplication and that the popular and accepted become boring and even distasteful to the discriminating. Others, with more reason, would point to the forfeits of commerce, the successive economies and embellishments whereby the substance is lost and only superficial mannerisms remain, with the result that what was originally a genuine contribution to design appears merely pretentious. Indeed pretension, "the borrowing of ornaments expressive of lofty associations and applying them to mean objects", lies close to the heart of the problem.

But we believe that because "the machine with its million fingers works for millions of purchasers" (as Dr Whewell said after the 1851 Exhibition) there is no reason why the masses should not enjoy the benefits of a good design. Only the salesman's timidity dare not try it on the multitude and, at the other end of the scale, only snobbery casts discredit upon it once it is produced in any quantity.

POINTS and POINTERS

EXPORT "This country lives by its export trade", writes the President of the Board of Trade, Mr Peter Thorneycroft, in the Board's revised edition of **EXPORTING TO THE UNITED STATES OF AMERICA**;* and to judge from the section on 'Style and Design', it is clear that much of this trade depends on the right appearance and presentation for each product. In pointing out that design becomes more important in the upper-medium and higher price ranges, the report states: "It is a mistake for imported goods always to ape United States styles and

* HMSO 1954 3s 6d.

fashions . . . many types of imported consumer goods gain added attraction if their place of origin is revealed by characteristic design or pattern."

The American market is receptive to novelty and change, says the report, and the British designer must have intimate knowledge of the rapid seasonal variations of styles. How to combine novelty with a characteristic British style is the problem, and the report does not help much towards a solution. The fact that the stress is laid on the more expensive product is perhaps the key, for there is nothing to prevent the finest British quality and workmanship being embodied in original modern design.

CRAFT VIEW Is the link between the craftsman and the factory getting any closer? This question was suggested by a visit to the recent exhibition 'The Crafts Today'. Crafts-

men who are essentially experimental designers are frequently in the industrial background to new products; at this exhibition several of them were given the limelight. The large resist-dyed textile panel by Michael O'Connell was one example; another was the stoneware liqueur set by Irwin Hoyland which could be considered for quantity production in Stoke-on-Trent.

Throughout the exhibition richness and finesse went hand in hand. Indeed the craftsman's freedom to linger over his work is to be envied and there were relatively few disappointments in the exhibition. Most notable was the silverware, where skill in execution was not coupled with modern design standards.

The exhibition itself was invitingly designed by Leonard Daniels for the organisers, the Arts and Crafts Exhibition Society. See the photograph on page 42.



NEW BUS London Transport has set such an uncompromisingly high design standard for its equipment that whenever anything new comes along we feel justified in expecting the best. This new 64-seater bus, which is shortly to replace trolley-buses, incorporates radical changes in construction and mechanical layout while the appearance is still close to the well-known London bus. The changes are interesting: for instance the construction is monocoque, aluminium is very widely used and glass fibre proves its usefulness for the wing valances, bonnet and seat backs.

But is all this technical development matched by the appearance of the new bus? Apparently the L T E engineers did not think so and a liberal sprinkling of chromium on the air-intake and headlamp surrounds has been deposited as a visual makeweight for the clumsy detail and incised lines of the bonnet. London Transport's vehicles have become our best design advertisements for visitors to the capital; it would be a pity to lower the standard.

CAMERA VIEWS

Jack Stafford



FUL-VUE SUPER



PURMA PLUS



ADVOCATE



PERIFLEX



AUTORANGE



WRAYFLEX



MONOBAR

A survey of design in a British industry which, although enjoying substantial protection against imports, is still largely overshadowed by foreign, and particularly German, competition.

IN ALL BRANCHES OF CAMERA DESIGN there continues to be steady progress in technical specification with two dominant trends towards simplicity and flexibility, if possible combined. As in so many fields of design, however, simplicity of operation entails complexity of production. To offset the higher tooling costs which this involves it is necessary to maintain long production runs which mean that a camera must not only sell well when first produced, but it must continue to sell for a long time. Clearly therefore it is of vital importance that the camera's appearance should keep pace with the technical achievements which have been made. Careful attention both to shape and detailing is necessary if the camera is to hold its own with new designs from home and abroad. Such an approach is essential today for it is generally true that the British industry is running below economic production levels while it is estimated that it is accounting for only 20-25 per cent of the British market. Considerable financial and design courage may be needed to break out from this position, and yet the achievements of Leitz and Kodak, at both ends of the price scale,

show the advantages to be gained from enlarging their markets to benefit from large-scale production.

The quality of production in the industry is extremely good, and this is particularly true of the optical side, though foreign cameras, in spite of a 50 per cent import tax, are selling for less than their British counterparts at almost all price levels. In addition, a camera may only be imported if its price, ex-works, is less than £5 10s, at which price it retails here for £20-£25. Purchase tax on all cameras for normal use is 50 per cent, only technical instruments being immune from this.

In all price ranges, detail changes in design have been dictated by the overall trends. Square formats are common for cameras using the bigger film sizes, as they need only one operating position. Interlocking devices prevent double exposure; often a single movement winds both film and shutter. Single-lens reflexes are becoming popular, whereby the actual 'taking' lens is also used for both viewfinding and focusing. This is especially suitable for interchangeable lenses. More flexible cameras free the operator from dependence on ambient lighting conditions - thus lenses of wide aperture, coated to increase transmittance, enable colour film to be used in poor light. Flash synchronisation is fitted even to the cheapest cameras, so that they can be used indoors or in darkness. The 35 mm camera fulfils most of these conditions and is increasingly popular, for complex mechanisms are best housed in one small and rigid body; large aperture lenses are cheaper and film, particularly colour film, is cheaper too.

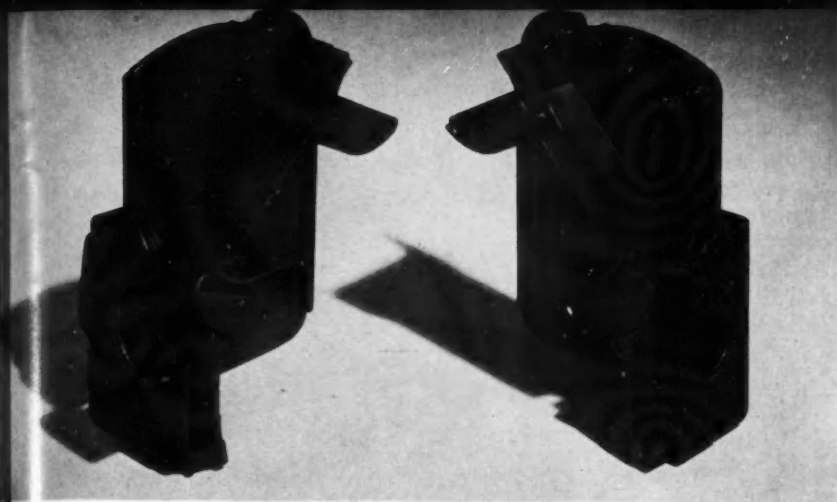
Market conditions

With cameras selling retail at under £10, British manufacturers are certainly holding their own. At this price level, production runs are always large, and the import duty makes a significant difference. In the lower half of the medium price range (£10-£50) competition is intense. The market is large, and a great variety of models is available at all prices; buyers are reasonably expert, have a wide but definite variety of tastes and are very price conscious. The availability of second-hand (often pre-war) instruments such as the 'Leica', 'Contax' or 'Rolleiflex' at about £50 adversely affects the demand for simpler though new cameras at the

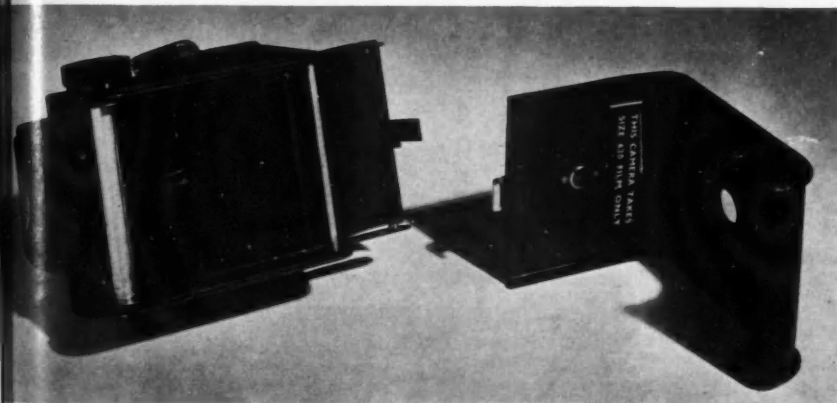


ABOVE *Ful-Vue Super: The viewfinder screen is shielded by the erected hood and gives an extremely clear upright image. But must a box camera be quite so aggressively boxy?*





LEFT *Ful-Vue Super*: The two almost identical castings which make the camera robust and cheap to produce.



FUL-VUE SUPER is made by Ross Ensign Ltd, sells for £2 19s 9d and takes 12 pictures $2\frac{1}{4}$ inches square.

The shaped and grooved sides allow a good grip to be obtained but the general appearance is rather awkward. Nevertheless, the camera is selling very well, having a remarkable specification for its price. The body is formed from two very similar pressure die-castings – almost unique in this price class – which are joined with tie bars and sealed in front. The simple shutter is flash synchronised. The basic design was first marketed in 1939 and has always included an unusually large reflex viewfinder; since then over a million have been sold.

LEFT *Ful-Vue Super*: The detachable back and swing-out film cradle make loading easy.

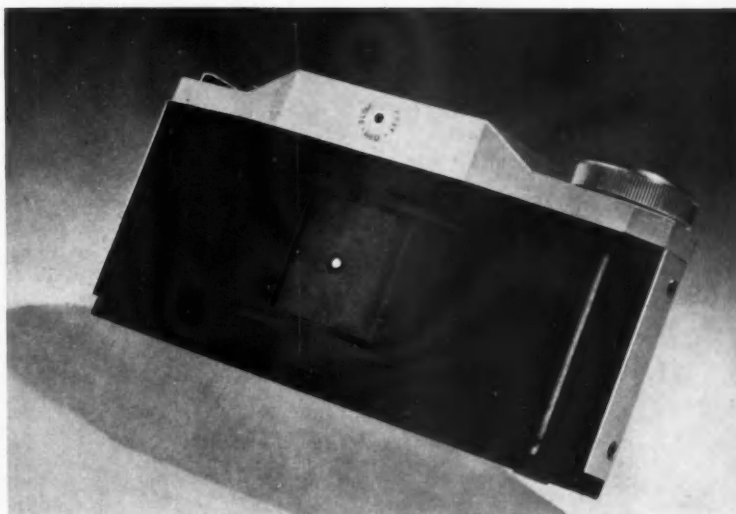
PURMA PLUS is made by Purma Camera Ltd, sells for £8 8s 0d and takes 16 pictures $1\frac{1}{4}$ inches square

The main body is black with a fine 'crackle' finish, the top and bottom being finished in a clear stoved lacquer. The appearance is straightforward and honest, giving a feeling of great strength. This camera is a very well-integrated piece of design, in which the unusual specification is expressed.

The camera represents a completely new principle, whereby the shutter speed depends on the position in which the camera is held; the idea was developed and first marketed in 1936. The focal plane shutter is curved, so that the moving blind is thrown centrifugally against the back of the shutter, acting as a brake ensuring constant speed of travel. In addition, the curved focal plane minimises lens correction. The whole camera is metal, die-cast zinc being used for body and top, shutter of cold rolled steel, and the detachable back and bottom of pressed steel. The design is almost completely foolproof, due to the extensive interlocking of its mechanism.

LEFT *Purma Plus*: The camera is simple and extremely sturdy; these qualities are well expressed.

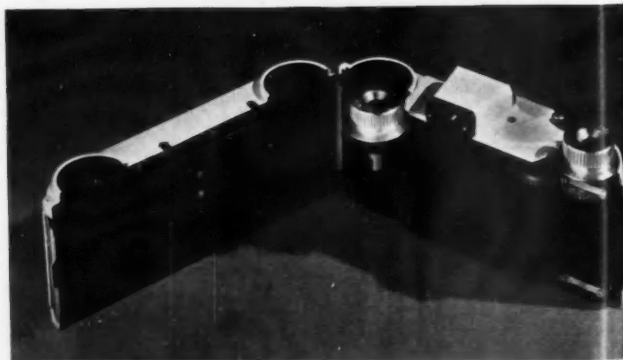
RIGHT *Purma Plus*: The curved focal plane shutter gives the camera its form and dimensions.



same price. At prices over £50, the accumulated prestige of German firms is hard to defeat. This prestige has been heightened by the action of certain British manufacturers, whose policy is to produce exact visual copies of famous German cameras. This section of the market is completely overshadowed by the actual or potential menace of German competition, although it enjoys considerable protection against imports. It is here that British manufacturers could exhibit their finest qualities; this price level is the real home of the precision 35 mm camera, often using two or more interchangeable lenses to each camera body. British lenses are certainly the equal of any in the world, and standard (35 mm) cinematography has long used British optical equipment; it has been estimated that 80 per cent of Hollywood films are shot through British lenses.

Approach to design

The cameras illustrated here are a small selection from the many British designs on the market, and show something of the way in which problems are solved at various price levels. Of these various manufacturers, the more adventurous designs come from those who make cameras only – Ilford make chemicals and films, Ensign (Ross) and Wray make lenses and binoculars. The 'Ful-Vue' is probably the only instrument whose costs would not be much reduced by increased production; it is now being made at the rate of about 4,000 a week. Lower prices would enormously increase the British slice of the trade and might well expand the whole market. A greatly improved standard of appearance would improve sales without increasing costs, but this would have to meet two conditions. It should be a positive approach which makes the camera attractive to own and use in a way which is different from foreign designs – unmistakably British. At the same time it must not be 'flashy' – it is the prestige of foreign cameras which must be overcome, so that the quality and precision must be definitely expressed, and the camera given a workmanlike feel. The difficult combination of these two attitudes has been achieved in the 'Leica'. It could be done as well, and as often as a British manufacturer makes a camera – at whatever price – and he has 75 per cent of the market to gain.



TOP Advocate: A good overall design which suffers from unrelated basic forms.

ABOVE Advocate: Loading is easy, with back fully open and rewind knob swung out. The main castings are: back, body, and viewfinder with shutter guard.

ADVOCATE is made by Ilford Ltd, sells for £24 16s 11d and takes standard 35 mm film

When first produced five years ago the appearance represented a considerable breakaway from the usual finish and colour. The relationship between the circular control panels and the protruding mount is, however, uneasy and unnecessary styling lines break up the smooth flow of the body. These superficial faults mar an otherwise fine and confident design which was successfully introduced to a market dominated by foreign models.

The camera is very robust, being designed for relatively unskilled use although it has quite a comprehensive specification. The body is of die-cast alloy, finished in ivory stove enamel. The shutter is wound with the film. Loading is easy; the back opens like a book, and the cassette holder swings out. A separate enamelled casting holds the viewfinder and guard for the shutter lever.

PERIFLEX is made by K. G. Corfield Ltd, sells at £32 19s 3d and takes 35 mm film

The camera is of completely straightforward appearance, no attempt being made to integrate separate functional parts. The control knobs are relieved with black incised lines and small circular leather panels, all exposed metal parts being of untarnishable bright alloy. The camera is designed as a true precision instrument at a medium price, is fitted with interchangeable lenses and viewfinders. The back is detachable for loading, and carries a plain glass pressure plate.

The most unusual feature of this camera is a small mirror which can be lowered into the focal plane, throwing a central portion of the image on to a ground-glass, where it is viewed through a magnifying lens. This periscope is spring loaded, being normally held retracted out of the field of the lens. With this device, extremely accurate focusing is obtained with whatever lens may be used; the camera accepts all 'Leica' lenses.

ABOVE Periflex: The camera is a straightforward piece of design, and any 'tidying up' would increase costs although it might give a more integrated appearance.

RIGHT Periflex: The small mirror periscope is seen lowered into the lens field.

BELOW Autorange 16-20: A skilfully detailed traditional type of folding camera in its fully developed form.



AUTORANGE 16-20 is made by Ross Ensign Ltd, sells for £39 15s 0d and takes 16 pictures $1\frac{1}{2} \times 2\frac{1}{4}$ inches

The appearance is restrained and traditional, the clearly defined shapes of the top casting, the focusing collar and prism holder on the lens mount providing the only visual excitement. Finish is satin chrome and black leather, with some bright chromium parts.

This camera is the most expensive in the Ensign range in which the 'Ful-Vue' is the cheapest. The main body and top are die-cast, while the rangefinder has no mechanical coupling between lens and camera body. The rangefinder is combined with the viewfinder which is of the Albada type, where the picture area is defined by a white line against a slightly larger field of view - ideal for action photography.



LEFT Wrayflex: The whole shape of the camera seems to stress the functional importance of the lens. RIGHT Wrayflex: With shutter wound, but lens removed, the mirror assembly can be seen. Note the main winding lever for film, shutter and mirror.



WRAYFLEX is made by the Wray (Optical) Works Ltd, sells for £75 8s od with f2.8 lens, and takes 35 mm film

The appearance of the camera is extremely good, the form being pleasing and simple, whilst the reflex function is emphasised by the two leather panels on the mirror housing. Finish is black leather and satin chrome, with some bright chrome and black on the lens. This camera is the only original British design offering a specification comparable with the finest foreign cameras. It is a single-lens reflex, where the eye-level viewfinder works direct through the taking lens through a retractable mirror. This shows a clear image on a ground-glass screen, of which a small section is magnified for accurate focusing; this image is reversed left to right. After the war, cameras of this type were brought out by several manufacturers, but in most of these a pentaprism was added which shows the image right way round - this would have increased the price by about £20. A range of interchangeable lenses is available, and a single control sets the mirror and winds film and shutter, although this is underneath the camera and not ideally accessible. The main body is a lost-wax casting, the top, bottom and detachable back being brass pressings.



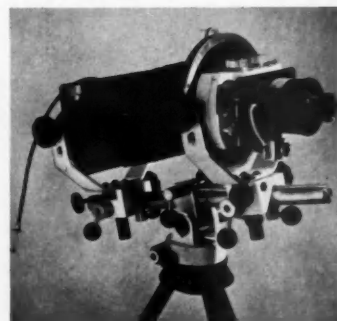
ABOVE Wrayflex: The leather panels are skilfully used to emphasise the form and function of the camera.

K I 35 MM MONOBAR is made by Kennedy Instruments Ltd and sells for £100, without lens and shutter. This price includes the fitting of any lenses and shutter chosen by the customer. Interchangeable film magazines which accept 35 mm cassettes are £25 each

This is a scientific and technical instrument (it carries no purchase tax) which has been designed within the most stringent limitations, and is an example of a thoroughbred in design terms. It is made entirely from metal finished in ivory enamel, blackened steel and aluminium, and satin chrome. This combination with the black leather bellows and the red index lines, gives the camera an air of precision in readiness due largely to the very purposeful restraint exercised by the designers. As the aim of the box camera is simplicity, so that of the technical camera is flexibility.

The K I 'Monobar', as its name implies, is built about a single metal bar upon which the pan and tilt tripod head and the two end panel assemblies permit almost complete mobility in every direction. The front assembly carries the lens panel, and the rear assembly the ground-glass screen and magnifier. The camera can be revolved through 360 degrees and can be rapidly loaded and unloaded.

BELOW Monobar: This back view shows the ground-glass screen and focusing magnifier retracted to allow the film back to be inserted in the taking position.



BELOW Monobar: Main components of the camera. The detachable back is disassembled; it may be loaded in daylight or darkroom.





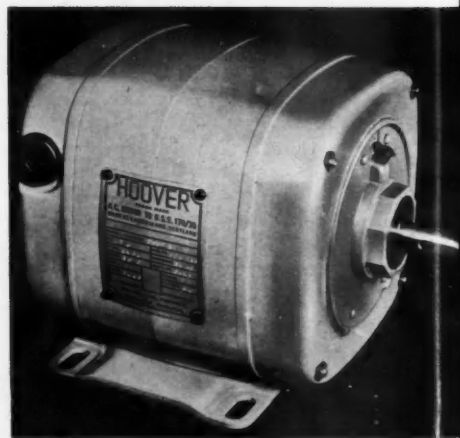
Scottish products and stands

THE SUCCESS of the 'Scottish Industries Exhibition', held in Glasgow's Kelvin Hall during September, could hardly have come as a surprise to the organisers, the Scottish Council (Development and Industry), whose President Lord Bisland, Exhibition Chairman R. A. Maclean and Secretary Dr C. Macrae had discovered, in a recent tour of the U S A and Canada, a growing demand for Scottish products of all kinds. The response, too, from Scottish industry was excellent, over 300 firms being represented from no fewer than 100 different industries. Even so, Scotland's most important industries, shipbuilding and

coalmining, could be shown only in part because of the inevitable limitations of space.

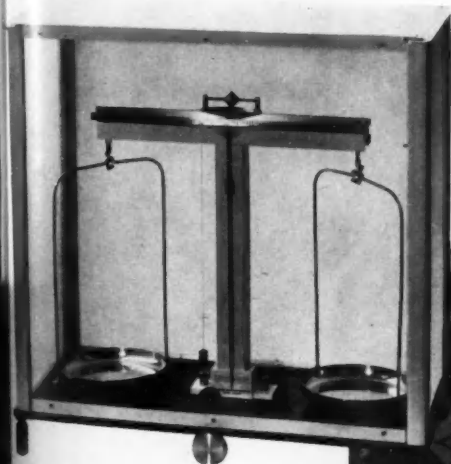
Scotland's insistence on fine quality and craftsmanship has not always been matched in the past by similar standards of design. Of particular interest, therefore, at this exhibition was a sign of an increased awareness of good appearance in both the products themselves and the stands on which they were displayed. Compared with its predecessor, the first post-war 'Scottish Industries Exhibition' held in 1949, the improvement was marked. More products of better design could be seen on all sides while the general level of stand design, higher perhaps than the average at London's B I F, was set off by a few which were unusually imaginative. On the following pages we illustrate a selection of new products and stands from the exhibition which was opened by H M Queen Elizabeth the Queen Mother.

LEFT Ralph C. Ormiston designed the 'Sofono-Sunray' stove manufactured by the Grange Camelon Iron Co Ltd for Federated Foundries Ltd. By replacing the usual small mica windows with a single transparent fire door of MONEL METAL gauze, which does not smoke up and is of light construction, the clear view of an open fire has been achieved in an all-night burning closed stove. The elimination of grilles, by incorporating all the convection inlets and outlets on the front, has greatly enhanced the appearance. In two contrasting or matching colours in vitreous enamel, this stove brings an entirely fresh approach to the design of this type of equipment.



ABOVE The HOOVER Mark 2 FHB motor designed by the company and produced at its Scottish factory has numerous applications in refrigerators, milking-machines, drilling-machines, air-conditioning fans, sewing-machines, etc. The functional requirement for efficient cooling resulted in a redesign of the original cylindrical casing and led to the development of the more sensitive shape shown here.

RIGHT Ceilings of different colours and at different levels were used to suggest the three separate sections of the ICI exhibit which included contributions from the Nobel Division, the Dyestuffs Division and the Metals Division. These sections were arranged in an open plan with screens of ARDIL fabric and of display material imaginatively used to divide up the space. The basic structure of the stand was designed by Basil Spence and Partners and built by City Display Ltd. The arrangement and design of the display material was carried out by Collett and Beadle.



ABOVE In the redesign of the 'Sectal' balance made by W. B. Nicolson (Scientific Instruments) Ltd, duralumin was used in place of wood for the base owing to its greater stability. The pillar and beam support were formed from channel-sectioned aluminium alloy and the case is constructed of extruded aluminium sections with PERSPEX panels. To facilitate use against a bright light the PERSPEX at the back and sides is opal, which has the additional advantage of concentrating attention. Designed by W. H. Nicolson.

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ABOVE The flush-top drums, suitable for heavy or light fluids, shown by Metal Containers Ltd include some interesting features. The opening is slightly tilted for better pouring and the slope of the recesses for the opening and for the handle prevents the collection of oil or water and foreign matter on the top. Construction of the barrel is of electrically welded sheet and the top is made from one pressing. A wide range of colours is supplied.

LEFT This carpet, designed and made by James Templeton & Co Ltd for the new P & O Liner 'Arcadia', is a good example of a bold modern design, using natural motifs, of a type which is now being developed for contract work. Too large in scale for domestic use, this may yet give a lead away from the spot and small, geometric-shaped motifs which have recently predominated.

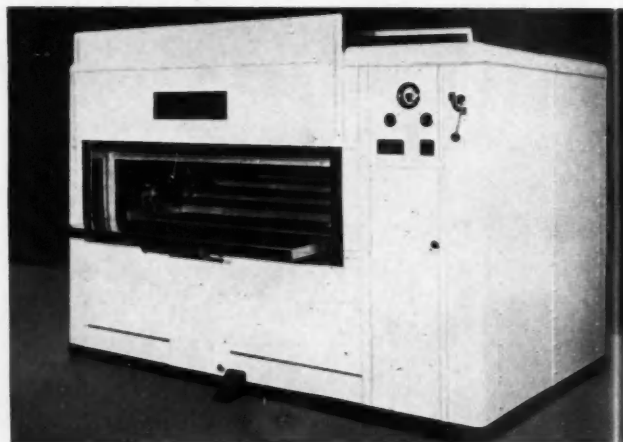
This stand for Wylie and Lochhead Ltd was designed by Jack R. Notman as a result of a competition, held by the firm, in which there were over 50 entries. Two main items of completely different character – a group of church furniture and a modern ship's cabin interior – had to be accommodated and this was achieved by creating two floor levels with a dividing screen between each. The two areas were connected by staircases which were arranged to allow a fluid movement through the stand while keeping each section separate. The stand was built by the firm.



Wylie and Lochhead Ltd built up a ship's cabin on its stand primarily to interest shipbuilders, but also to show the housewife how a small bedroom can be made up using cabin type furnishings to advantage. Of particular interest is the dressing-table in natural and bleached mahogany. The absence of projecting handles both on the dressing-table and drawer under the bunk is an obvious advantage on board ship and the proportions of the dressing-table are generous and dignified. The designer of this cabin with its furniture was Jack R. Notman.



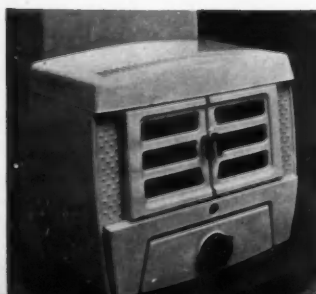
Outstanding among the smaller stands was the exhibit for Dunn of Uddington, a firm of fireplace engineers, ironfounders, sheet metal workers and vitreous enamellers. The centre-piece of this simple, cheerful stand was one of the firm's modern fireplaces designed specially for use with all-night burning fires. This fireplace was built into an elegant cupboard and bookshelf unit to show the type of installation which the firm carries out. Designer: Alec McLeod of Sam Buntin and Associates. Contractor: A. Jameson & Son Ltd.



This gas-fired, thermostatically controlled oven by James Cruickshank Ltd, Edinburgh, is a good example of the greatly increased attention to detail and clean finish now evident in much kitchen and food-processing equipment.



ABOVE The internal construction of this boiler, made by Smith & Wellstood Ltd, is similar to that of the firm's 'Mermaid' boiler. The new outer casing was designed by A. B. Cole of Design Industries Ltd, the front and top being of cast iron finished in vitreous enamel and the sides of sheet steel finished in stove enamel. The illustration shows the 'deluxe' finish but there is also a standard finish incorporating some simplifications. Both are offered in cream, apple green, powder blue or white.



LEFT AND RIGHT Two new stoves, the RAYBURN 'Room Heater', right, made by the Callendar Abbots Foundry Co Ltd, and the 'Panda', left, made by the Forth & Clyde & Sunnyside Iron Co Ltd, were exhibited on the stand of Allied Ironfounders Ltd. In producing these stoves an effort has been made to improve appearance by general attention to detail. Inlet convection grilles are concealed and unsightly hinges and knobs have been eliminated. An interesting move towards the introduction of simple decoration is noticeable in the fluted front panel of the 'Room Heater' and the raised spots of the 'Panda'.

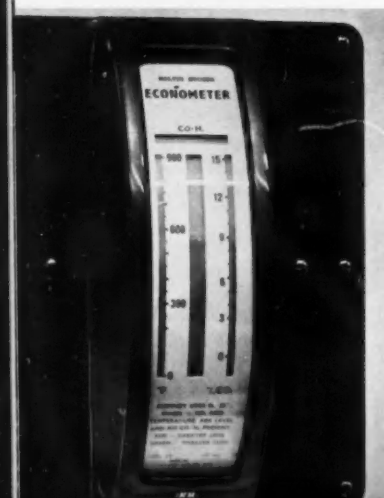
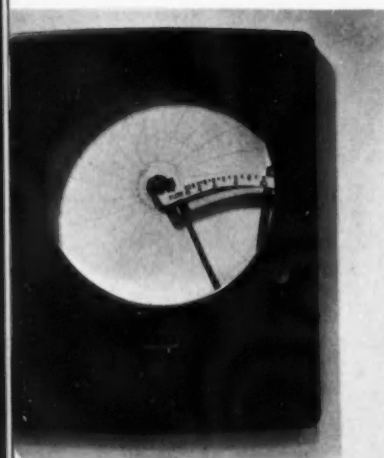
BELOW Astral Equipment Ltd has combined the BK (electric) and B7 (gas) refrigerators in the new BM model suitable for operation by gas, electricity or CALOR GAS. Features of particular interest are the grey finish to the breaker frame (not visible with the door shut) and the elimination of screws both from the frame and the inside of the door. Otherwise this model follows the now familiar good appearance of all ASTRAL equipment.



BELOW To the order of the Stirlingshire Education Committee, James D. Bennet Ltd, of Glasgow, redesigned its Stirling Mark I pattern desk and has now produced the Mark II shown here. The metal book-trough has the dual advantage of keeping down cost and being easy to clean, while the general form combines rigidity with good balance.



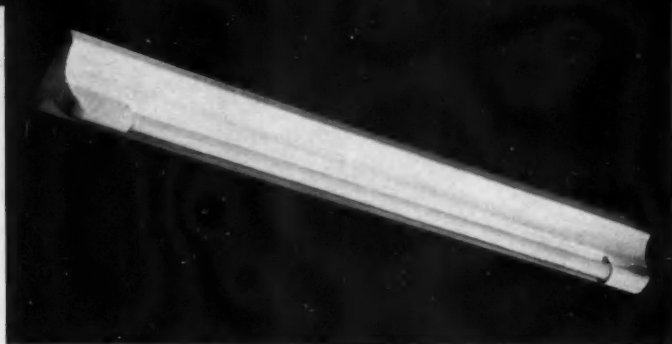
BELOW The 'Commander' twelve-station desk telephone has been well-designed to economise space on office desks. The construction is a walnut frame with a light metal body and BAKELITE controls and is an improved version of previous instruments incorporating important functional advances. It is made by Modern Telephones (Gt Britain) Ltd.



LEFT Constructed of aluminium castings, the 'Flowmeter' and the 'Econometer' shown by Kelvin & Hughes Ltd are both light and robust. The 'Flowmeter' can be adapted to show combinations of flow, pressure or temperature as required. The 'Econometer' shows the combustion efficiency of a boiler at a glance, and by means of red and green lights indicates to the boiler-man that efficiency is down or is normal. These two instruments show an attention to good legibility and clean appearance, unlike many similar instruments available today.



ABOVE: The new 'Vistarange' shop counter on the stand of Donald Grant & Sons. This counter, designed by J. J. Grant, the firm's managing director, has some interesting features. It is constructed of laminated board and glass, the glass panels being removable to replace breakages. A special plastic fitting slides over the top of the counter and projects in front to accommodate customers' bags and parcels.



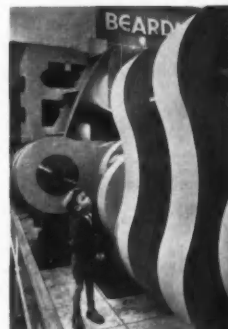
LEFT The fluorescent light-fitting shown by Arnoplast Ltd is a good example of clean construction in plastic. The firm is a comparatively small one and most of the design work is done by M. Alton, the managing director. A variety of products in moulded and fabricated thermoplastics is manufactured.



LEFT To meet the requirements of customers who want a power wringer and an electric boiler element, Ezee Kitchens Ltd have produced the EEZE 'Perfect Sink'. This is on the same lines as the earlier model, but incorporates a PERFECT instead of a HOOVER washing machine. The enclosing cabinet is in ZINTEK steel which it is claimed is superior to galvanising as a method of rust prevention. When not in use, the wringer stores neatly in a space beneath the washtub. A stainless steel cover acts as a draining-board.



LEFT The British National Electrics Ltd, an associate company of Johnson & Phillips Ltd, are showing the BNEC 90 electric cooker, designed by H. J. Gollins, the technical manager. Features of this cooker are the rapid pre-heating speed of the oven and the ease with which it can be dismantled for cleaning. A PYREX heat-resisting glass casserole is included which also serves as a grill pan. A detachable handle to this enables the grill compartment to be closed during grilling.



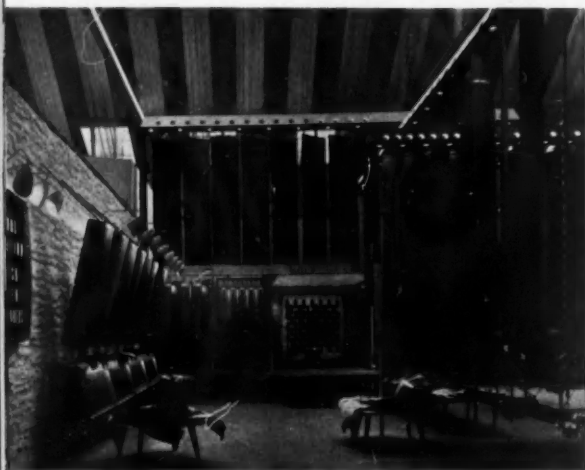
ABOVE Our cover photograph shows part of the stand for William Beardmore & Co Ltd where some of the largest metal castings ever poured were displayed. This example is a crankshaft for a ship.



ABOVE The 'Dustfoe 55' respirator was designed for industrial use but has many other applications, such as use in corn-mills or for building contractors' workmen when cleaning buildings. In addition to ingenious arrangements for easy cleaning and disinfecting, this respirator has the advantage of being exceptionally light - it weighs only 2½ oz. This mask is made by the Mine Safety Appliances Co Ltd.

1 Grey, black and white women's suiting by Wilson & Glenny Ltd.

2 Lightweight wool shirting material by Simpson and Fairbairn Ltd.

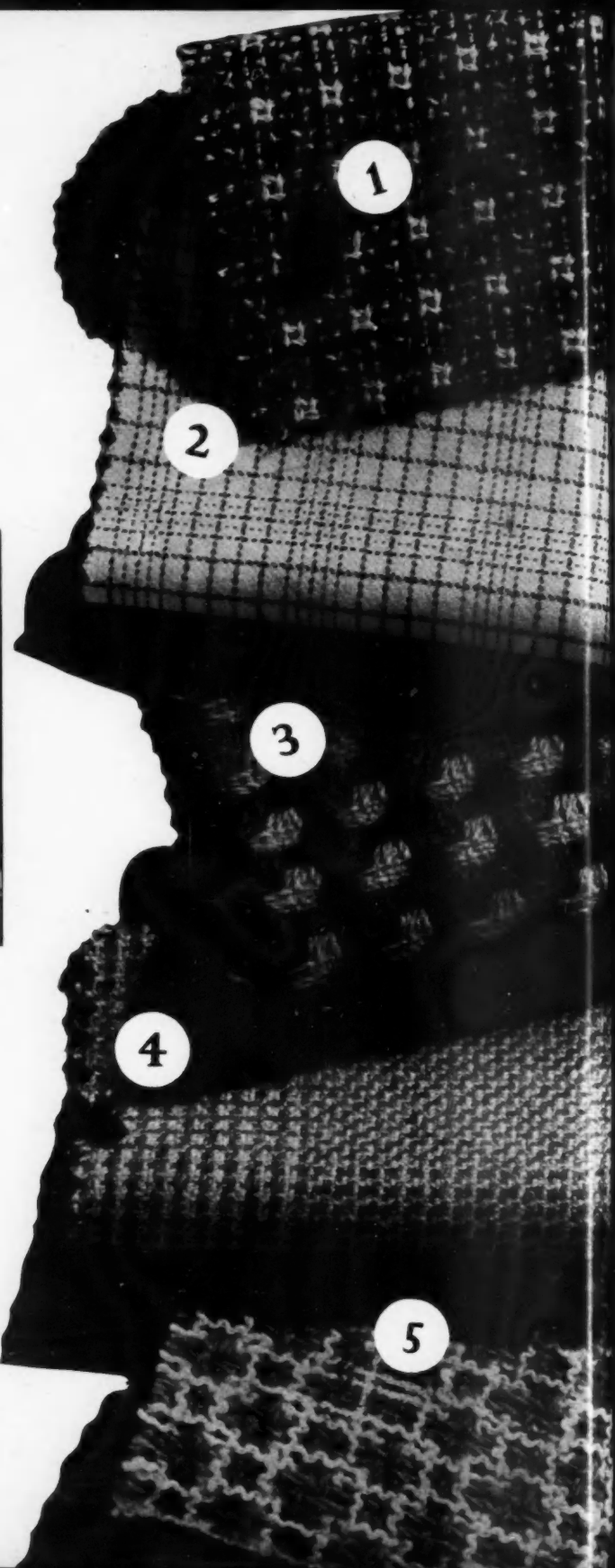


This stand for the National Association of Scottish Woollen Manufacturers had a greater feeling of scale and space than any other stand at the exhibition. The towering screens, made of lengths of woven cloth suspended in crossing frames of various heights, successfully divide the floor area without breaking its essential unity. This imaginative treatment suggests the lightness and strength of modern architecture. Designer: Basil Spence & Partners. Contractor: Donald Grant and Sons Ltd.

3 Ladies' coating by Wilson & Glenny Ltd.

4 Lightweight tweed produced for American sports jacket trade by George Roberts Ltd.

5 Ladies' coating using fancy yarns by Wilson & Glenny Ltd.



CONTROL GEAR

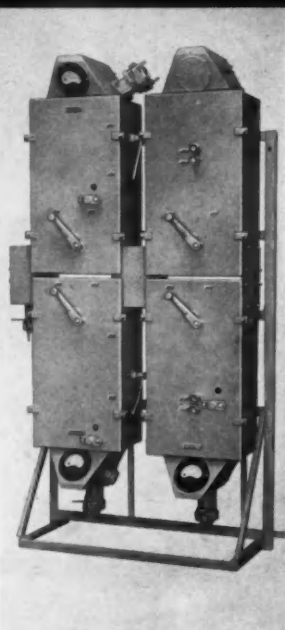
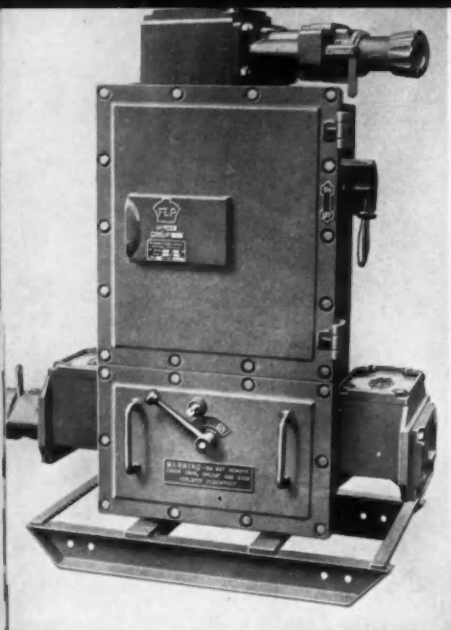


One of the latest groups of BELMOS electrical control gear housed in self-supporting sheet steel cabinets. Units in two tiers can be assembled with the smaller three-tier units within the same group. This was made possible by the introduction of vertical trunkings between units of different sizes.

from Scotland

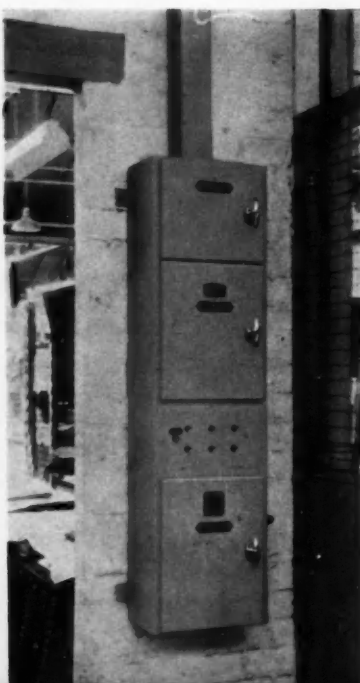
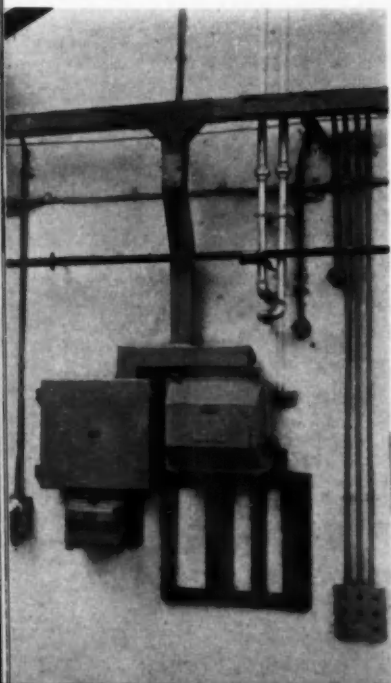
IN A PAPER READ to the recent Design Congress, organised by the CoID Scottish Committee, Thomas Coughtrie, chairman of the Belmos Co Ltd, gave a detailed account of the way in which his firm has designed and produced a new range of electrical control gear for general industrial applications.

The story of the development of this equipment (some examples of which are illustrated here) goes back to 1948 when the firm decided on a new policy to extend its activities. Previously its operations had been confined to the manufacture of medium-voltage, flameproof gear for use in coal-mining and other industries where the presence of explosive gases is a constant danger. Each piece of equipment had to be type-tested to comply with the regulations to ensure safety in mines – a long and costly process which resulted in the development of a few standard cases to house a very wide variety of electrical components. Though good appearance was a minor consideration, the long experience gained in this type of product formed a valuable basis for the new units which were required to satisfy the demands of many different industries. The first attempt at the new units was however disappointing. Though they were designed to be built together to form groups, the individual units were based too closely on the earlier mining type. Not only was there little improvement in appearance but technical and production



ABOVE LEFT Flameproof switchgear for coal-mines – typical example of the type of BELMOS product prior to 1948. Main requirements were strength to withstand an internal explosion and rough handling. Design for appearance played a negligible part. ABOVE RIGHT The first attempt at building units in groups for general industrial applications. Note the supporting angle-iron framework and the similarity to the mining equipment.

BELOW LEFT Separate 'ironclad' thermostat switch, switch-fuse, distribution board and lighting switches – in the BELMOS factory before they were replaced by similar equipment housed in a single sheet steel cabinet. BELOW RIGHT One of the new sheet steel cabinets containing electrical switches, fuses and controls previously housed in separate, uncoordinated 'ironclad' boxes.



difficulties were encountered as well.

A new approach was clearly necessary and this was governed by a number of important factors. It was noted for example that the use of sheet steel in the motor-car, office equipment and other industries, suggested manufacturing techniques which could have a substantial and beneficial effect on appearance if used for control gear. The cabinets, it was therefore decided, should be self-supporting sheet steel without any cumbersome angle-iron framework. Also, to save floor space, the units were to be arranged first in two, and later in three tiers, and were to be of equally good appearance if used singly or in groups. At the same time they had to be of such a size and proportion as to house any of the existing electrical assemblies. Finally, it was agreed that a standard range of good colour finishes should be chosen which would encourage the user to consider the equipment as an integral and agreeable part of his plant, rather than an unpleasant necessity to be stowed in some out-of-the-way corner.

For large contracts it had been previous general practice to design each switch-board or control centre to the special requirements of the customer. Based on these new specifications the unit-type housings with their standardised components have been produced and sold at a satisfactorily competitive price. It is clear from the way the equipment is placed and maintained by many firms that the detailed attention given to its design is appreciated and has repaid the effort spent in overcoming the problems of the early development stages.

Although Belmos has achieved much for a small firm during the last six years it is not complacent about the future. It is conscious of the difficulties that may arise if it adds new items to the range without giving thought to a co-ordinating scheme. "We are becoming increasingly aware", Mr Coughtrie said, "of the need for the further services of industrial designers, not only to advise on matters of design but to train our staff and improve our knowledge of this subject. We, of course, are not alone in this matter."

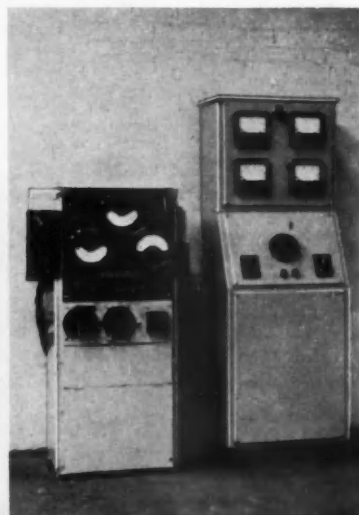
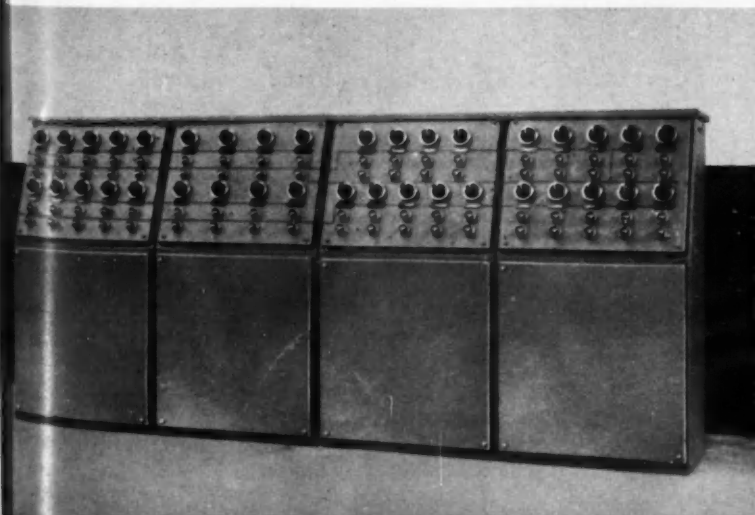
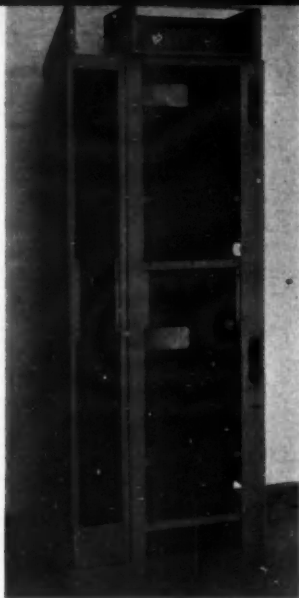
1 One of the specifications for the new equipment was that it should be of self-supporting sheet steel obviating the necessity for an angle-iron framework. Example shows double-tier housing without covers or doors, with trunking at left for inter-tier connections.

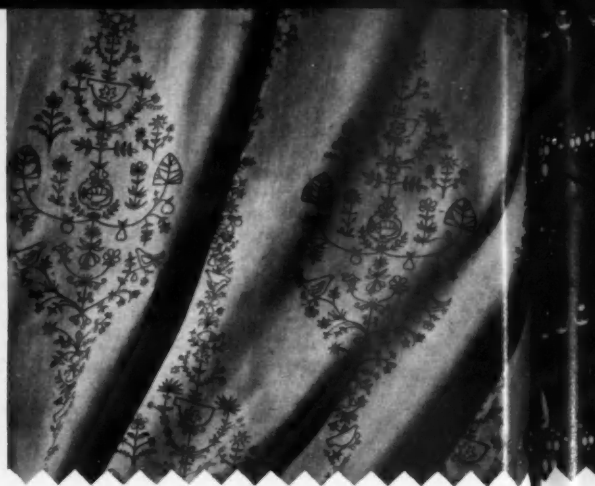
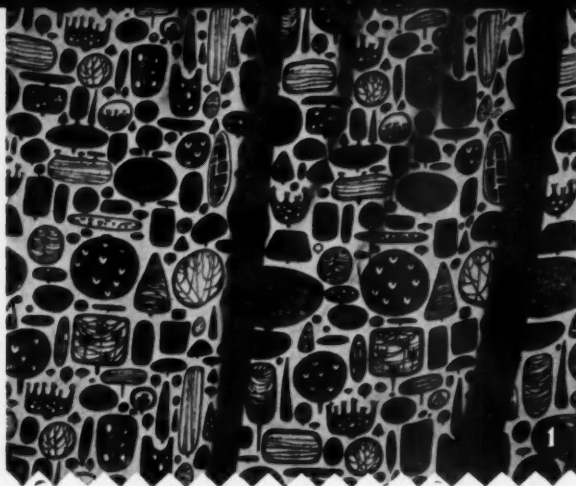
2 Single-unit double-tier housing with the trunking at the left and with 75 amp starter above and 200 amp circuit-breaker below.

3 Units were designed so that they would be of good appearance when used singly as well as when grouped together. This example shows eight units mounted in two tiers. Smaller units are produced for three-tier mounting.

BELOW Many firms are increasingly adopting the practice of controlling several groups of motors from a central control desk. This example shows standard units arranged so that a substantial amount of plant can conveniently be controlled by one operator.

BELOW RIGHT The control desk units can also be adapted for other purposes. This illustration shows: left, an old test set for works testing of switchboards and, right, the same equipment housed in a cabinet, the lower part of which is the same design as the new control desk.





New textiles from the Glasgow school

THE PRINTED TEXTILE DESIGNS produced recently by students of the Glasgow School of Art are interesting because they provide clear evidence of a marked and deliberate change of outlook during the last year.

Like other students, those of Glasgow in recent years have shown a particular interest in abstract design. That interest is still there but it seems now to have been joined by a new interest in natural forms, a change of front which was inspired and fostered in this case by Robert Stewart, the head of the Printed Textiles Department. While not turning his back on abstract patterns, he believes that there is a wide field for the reinterpretation of natural forms and that there is still endless scope in floral and natural motifs, both in drawing and in the handling of colour.

There is no doubt that since the war some manufacturers in the medium-priced trade have successfully sold, and continue to sell, abstract designs which, it must be admitted, fall into the doodle category. Whether or not these prove to have any lasting appeal,





and whether they will ever develop into a style with its own standards of quality, time alone will tell, but it may well be that the cause of good design will be better served by the application of talent and imagination to the rejuvenation of styles already generally accepted than by escape from the disciplines of sensitive drawing into fields where no rules and no standards exist.

The treatment of colour, which cannot be seen in the accompanying illustrations, still leaves room for experiment and development, but there is an encouraging freshness and evidence of individuality in the drawing, and where abstract shapes have been used they have been ordered and controlled to cover the cloth in a rhythmical manner and with a dignity not always apparent in this idiom.

In these examples there are strong indications of that increased humanity, that intimate sensitivity which has been lacking in much recent work in this field and elsewhere, and for which so many are now searching.

1 In this example Brenda Burnett has cleverly used abstract shapes to build a pattern which is unusually full and rich and covers the cloth well.

2 The drawing of this elegant and dignified pattern by Margaret Stewart is of almost childlike simplicity, but it is at the same time controlled and sophisticated.

3, 4, 5 Three quite different treatments by (left to right) Mary Moran, Maureen Massy, and Elspeth Yonge. The pattern on the left seems to possess some of the jewel-like quality of Adam decoration without recourse to any of the particular motifs traditionally associated with his work.

6 A charming interpretation of the rose motif by Anne Bannerman which retains much of the natural characteristics of the flower and its foliage, while the drawing has a confident personality of its own.

7 Bird forms have been simplified by Robert Finnie into interesting abstract shapes in their own right without distortion. The light trellis of stylised branches ties the pattern together.

8, 9, 10 These fabrics show how an effect of texture and space can be achieved in printed designs. In the example, left, Mary Moran has achieved a definite feeling of air and space round her flower motifs without disturbing the flat surface of the cloth. Centre, Rosemary Wilson has taken advantage of the opportunities for texture offered by litho-drawing and the design is printed by the serigraphic process. Right, Robert Finnie has obtained a definite texture by off-registering the main screen three times during the printing process.



A new look in radar

EVERYONE KNOWS THAT ELECTRICAL ENERGY can be carried by a pair of wires. But few people know that it can also be carried by a hollow tube and virtually piped from place to place, very much as water or gas is piped.

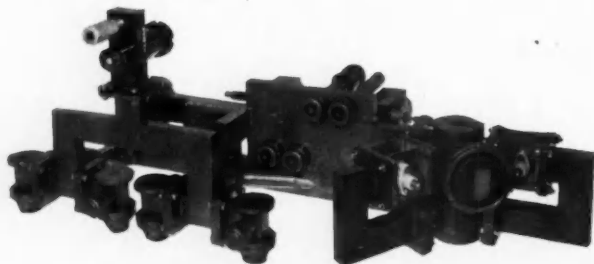
Yet the principles of operation of these tubes – known scientifically as wave-guides, although colloquially referred to by engineers as plumbing – are well established. It is necessary for their internal dimensions to bear a definite relationship to the wavelength of the transmitted energy, and for their inner surfaces to be perfectly clean and regular. If these conditions are not fulfilled, the wave-guide will not function properly.

Hitherto, it has been the practice to manufacture wave-guides from formed copper tube of standard section for straight runs, and to use specially bent sections for curved parts. This meant that it was necessary to build up complicated wave-guide assemblies from a large number of parts, a difficult and expensive business and one that did not lend itself to quantity production. Moreover, it was virtually impossible to inspect or clean the assembled wave-

guide, while comparatively simple to damage or disturb it.

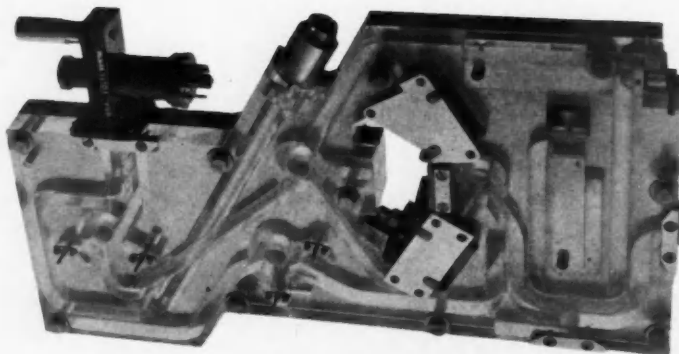
The milled-block technique introduced by Ferranti Ltd for the construction of wave-guide assemblies is a new approach to the problem. Instead of being fabricated from sheet metal, the wave-guides are cut in a solid block of aluminium. The block itself is in two halves, in each of which channels are milled to the full width and half the depth of the wave-guide, in the pattern required by the electric circuit. The two halves are then bolted together face-to-face to form a complete wave-guide circuit. The wave-guides produced by this method are highly accurate, not liable to distortion or misalignment, and simple to inspect internally. The method is well suited to quantity production, and can reproduce the most complicated assemblies with great precision.

The whole design is a logical one, and is in line with present-day trends to tidy-up and unify radio equipment, so that what once appeared as an alarming array of wires and wonders becomes a neat and business-like piece of equipment. It is, in short, very superior plumbing.



ABOVE Radar head made out of standard pieces of wave-guide.

RIGHT The new FERRANTI design using the milled-block technique. One of the two identical aluminium blocks has been replaced by a similar piece made of PERSPEX so that the internal structure can be seen.



OFFICE
EQUIPMENT

Part Five

R. Dudley Ryder

DUPLICATORS and

PRINTING MACHINES

THE COPYING OF DOCUMENTS plays an important part in the everyday routine of an office. Stencil duplicators are constantly being improved and now, by the use of electronics and of photographic processes, it is possible to reproduce on small office machines not only typewritten matter but also line and half-tone illustrations.

It is clear from the examples illustrated here, the fifth article in this series, that the office equipment industry is very much alive to the problems which face the business man today. In some cases the industry's achievements in the technical sphere have been coupled with an approach to the appearance of the machines which fully expresses this progress. In other cases design for appearance has still not been adequately considered.

In machines of this type a good appearance breeds confidence on the part of the user. Clearly defined shapes in the casing suggest efficiency and reliability. Careful detailing, particularly of controls and dials, suggests precision. A simple, overall form with clear lines, careful finish and well thought out colour suggest ease of operation and maintenance. All these things affect the interest and therefore the efficiency of the worker. Such examples as the RONEO 500 Duplicator and the ROTAPRINT offset litho printing machine show that some leading firms do not consider the problem to be irrelevant.



The designers of this duplicator, the RONEO 500 series II, have given careful attention to its appearance. The clean lines and precise detailing are excellent. It is provided with a fully automatic inking system which enables it to take up to 16,000 copies without re-inking. By using an automatic pre-selector device the machine will stop of its own accord when the required number of copies has been printed. Roneo Ltd.

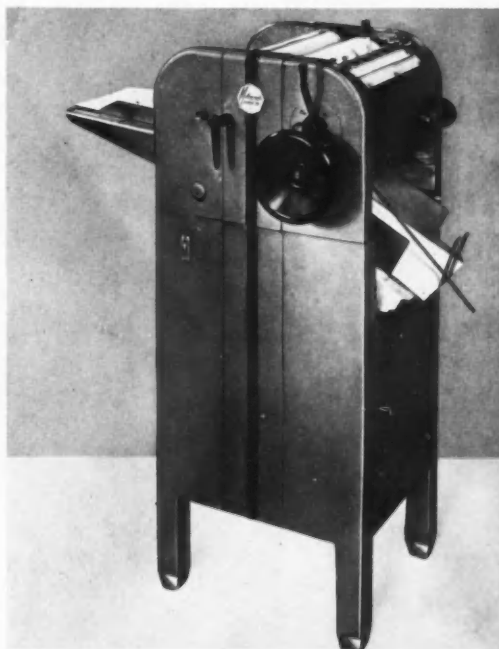
RIGHT The BANDA 10 spirit-duplicator is a small neat machine, though the drooping curves of the side panels are weak. As many as 200 copies, in anything up to seven colours at once, can be produced from one master. Similar machines are available in larger sizes. Block & Anderson Ltd.

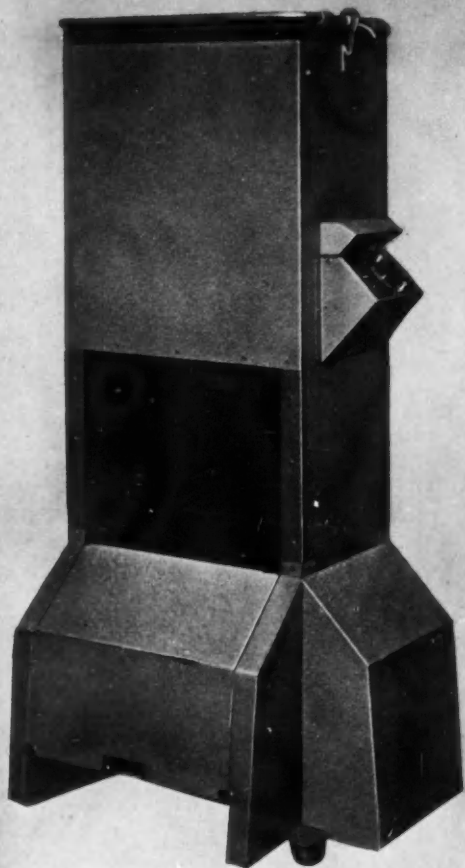
BELOW The latest GESTETNER model 260 automatic duplicator is a fine and well-finished machine. After years of research this machine now embodies a special synchronised self-inking mechanism which delivers the precise amount of ink required for each copy sheet as it passes through the machine. Gestetner Ltd.



RIGHT CENTRE The 'Multilith' model 50 duplicator has a straightforward appearance which is not improved by the decorative stripe running vertically down the centre of the cabinet. It has been designed for general-purpose duplicating, as well as for use with the new 'Duplimat' masters which can be changed quickly and which allow several sizes and weights of paper to be run consecutively without machine adjustment. Addressograph Multigraph Ltd.

RIGHT The casing of the BANDA 'Duplex' machine, designed by Scott-Ashford Associates Ltd, expresses its function with directness and simplicity. The machine is based on the BANDA spirit-duplicating process and will reproduce simultaneously from one master a series of related documents. Block & Anderson Ltd.





LEFT A straightforward steel cabinet houses the fixed focus camera of the 'Photoscope'. The process has been designed to cut out the intermediate negative and positive sequences so that an original may be translated to a stencil in one operation. Gestetner Ltd.

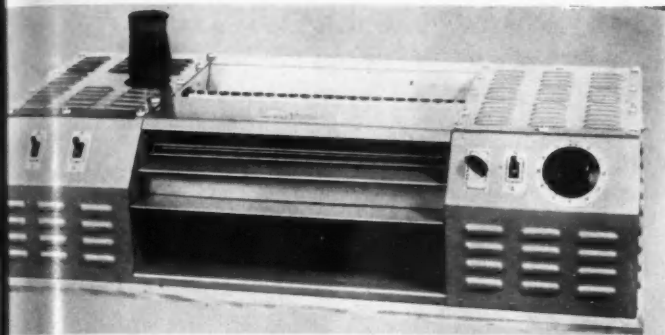


ABOVE This new electronic machine, the 'Electro-Rex', shows the great care which the designers have given to the subtle shaping of the case. The small, compact machine will reproduce stencils from most types of graphic material, the stencils then being used in a duplicator. The machine is in limited production and will not be widely available until 1955. Office Machinery Ltd.

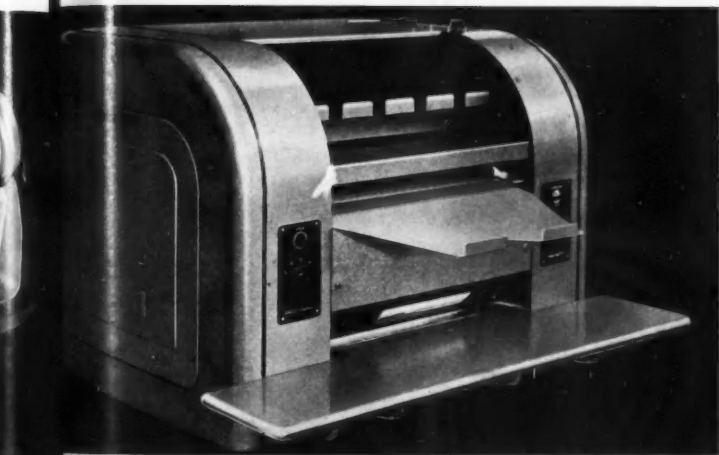


RIGHT The 'Multilith' model 1250 is a completely automatic offset litho duplicating machine, specially designed for use by non-technical operators. It is compact and has a simple unobtrusive appearance. Addressograph-Multigraph Ltd.

LEFT Photographs, letterheads, forms and printed matter of all kinds can be reproduced without the use of blocks, plates, films, or any photographic work by this electronic duplicator. The long tapering forms and crisp finish of the casing give an elegance which is well suited to this latest form of stencil duplicating. Roneo Ltd.

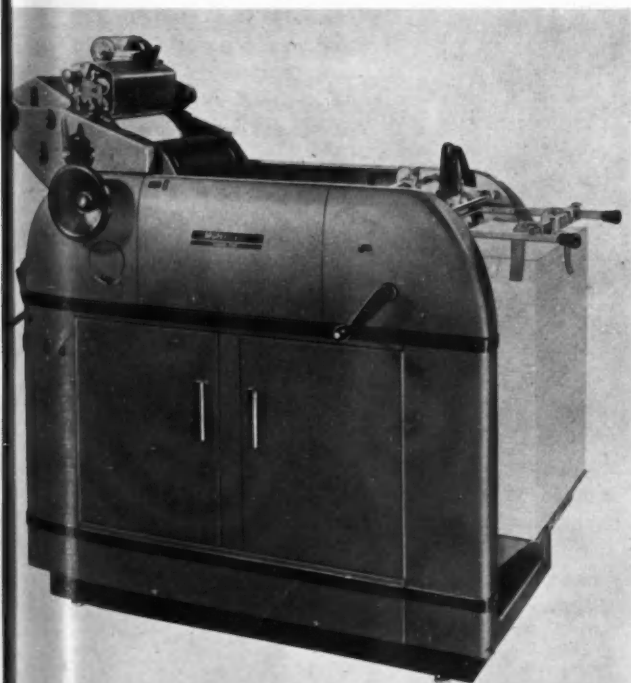


LEFT The 'Monex Office Copier' is the latest step forward in reproducing from translucent, opaque or double-sided originals on to diazotype (dyeline) materials. The machine is small enough to stand on an office desk but its fabricated metal case, with sharp corners and protruding fastenings, lacks the refinement of other machines shown here. Lawes Robjohns Ltd.



LEFT The 'Ozaminor' is a simple, compact-looking machine designed for copying from translucent forms. Only 31 inches wide, it combines both printer and dry developer in one unit. Ozalid Co Ltd.

BELOW The ROTAPRINT R30/90 offset litho printing machine is an excellent example of a clean, well-integrated design. The detailing of the handles and controls is particularly impressive. It was designed by A. B. Kirkbride, in collaboration with C. D. F. Middleton. The illustration on page 31 shows one of the new flexible metal plates used in the machine. Offset litho reproduction can be made direct from matter typed or drawn on these plates. Kaye's Rota-print Agency Ltd.





The statue of Lord Norman at the Bank of England by Charles Wheeler.

Montagu Norman

designer

Ian Colquhoun*

The north front of Thorpe Lodge with the big room, formerly the studio, on the right.



*The sudden and tragic death of Ian Colquhoun a few days before his 32nd birthday came as a profound shock to those who knew him personally as well as to those who knew him only by his work. On page 43 we publish an appreciation of his achievements as one of the promising designers of our younger generation.

THE NAME OF LORD NORMAN, former Governor of the Bank of England, is familiar to many people; but to few of these is he known as a designer. This is hardly surprising, since he left only the one work and that the interior of his own house; yet in its own way it is a monument no less remarkable than the results of his 20 years' work at the Bank.

To the layman the financier is a figure mysterious, romantic, sinister even. For such a man we suppose art to have no meaning save as an extension of power and personality. We picture him as inhabiting the finest of period houses, as collecting furniture, china, paintings, *objets d'art*, all again the finest of their kind and yet, we may confidently expect, no single piece belonging to his own times. For, since the possession of wealth no longer guarantees any standard of taste, the rich man turns to acceptable period styles, even in reproduction, to supply the authentic background which he may lack.

Not so Lord Norman. The obituary in THE TIMES speaks of him as "conservative by upbringing, training, and tradition", yet notes that he was always "remarkably up to date". When he came to make his home in London he knew exactly what he wanted, and in 1904 he bought a 50-year lease of Thorpe Lodge on Campden Hill. The house, then lately inhabited by a painter, was little more than a cottage with studio attached and, it may be supposed, in a somewhat neglected condition; thus the new owner, possessed of an original mind which strove after perfection and was satisfied with nothing less, had ample scope for his creative powers. At once he began to alter and enlarge the building, and as year by year the work advanced every detail was recorded in a notebook. The structural alterations were made between 1904 and 1908, the metalwork and light fittings between 1905 and 1912, and the furniture between 1908 and 1913 (with a few later pieces in the



A set of cruet. Beaten copper with silver mounts, and monogram. About 1906.



The lamp over the piano in the big room: silvered copper with cloisonné panels, by A. J. Shirley in 1907.



The hexagonal table from the hall (photographed in the big room) — of purpleheart, holly and tulip wood. Made in 1910 by J. H. Wakelin.

Folding-table in birch, October 1913. Note also the magnificent lily-pattern firedogs in wrought iron and brass by A. J. Shirley, November 1908. The wrought-iron screen is from the Guild of Handicrafts.



The end room: note the magnificent bookcases in balata, zaman and andaman padauk, lined with mahogany, by J. H. Wakelin, 1923.



The hall, lined with mother-of-pearl tiles and decorated with de Morgan tile panels. The radiator screen with silvered iron panels was designed by the architect, Earl Fervers, formerly W. K. Shirley. The light consists of three rows of eight shells set in copper. Screen 1907, chairs 1912 and hat cupboard 1910 by J. H. Wakelin.

A group of furniture under the gallery in the big room. Standard-lamp with parchment shade 1911, chairs 1912. The seven-sided chair, by J. H. Wakelin, is cut down from an octagon.



'twenties). Thus Thorpe Lodge represents a complete and homogeneous work of art carried out in a continuous burst of activity during those years which saw the final flowering of Victorian and Edwardian culture.

For the interior Lord Norman compiled a card index in which all the rooms of the house are listed together with their contents. While this no longer represents a complete inventory, it contains full details of almost all the important pieces designed for the house. The metalwork and light fittings were carried out by A. J. Shirley, a Master of the Art Workers' Guild, who died in 1912; the furniture and much of the joinery by J. H. Wakelin (retained as builder in 1907) and his chief joiner Robert King. Those few items not directly commissioned were bought from the Guild of Handicrafts, Arts and Crafts exhibitions, or from one well-known contemporary shop.

Lord Norman himself designed the furniture and light fittings, but it is doubtful whether he made any drawings other than sketches, if those. His ideas were probably worked out with the craftsman, any alterations being made as required. This was the process followed by Gimson, and it is Gimson's designs which come to mind as the inspiration for the Thorpe Lodge furniture, with its use of decorated bandings or edgings and uncommon woods richly figured.

Though most of the furniture is very practical, it has that agreeable touch of eccentricity which belongs to the English tradition of design at least as far back as the eighteenth century; this is seen in the chairs, of which there are only five, and those surely never intended to be sat in seriously. There are none of the flowing lines of *Art Nouveau*, nor is there any of that earnest lumpiness of the Morris school. Design is based on regular geometrical figures, the square, rectangle, triangle, hexagon and octagon, circle. As for the light fittings, these form a remarkable series of fantasies combining originality with beauty. Inventions of shells, ostrich eggs, *cloisonné* enamel, mother-of-pearl, and glass beads: set in copper mounts or hung with oxidised silver chains, they might be the extravagances of an earlier age, Elizabethan perhaps, or Baroque.

The complete history of the artist-craftsman between the years 1851 and 1914 has yet to be written, and the lesser personalities given full credit for their work. This period in England, although it produced much ugliness, is one of great achievement; such an interior as Thorpe Lodge is proof of this. The tragedy is that so little of it remains, and that not widely appreciated. In 1955 the L C C will begin the building of a new comprehensive school on the site of the adjoining house, Moray Lodge; Thorpe Lodge itself is to be used as an annexe. When the furniture is removed and the house no longer a home there will be little left of Lord Norman's original creation. Which of our present industrialists or bankers has anything of this rare quality to show, or has devoted himself with such confidence to the 20th century?

USA

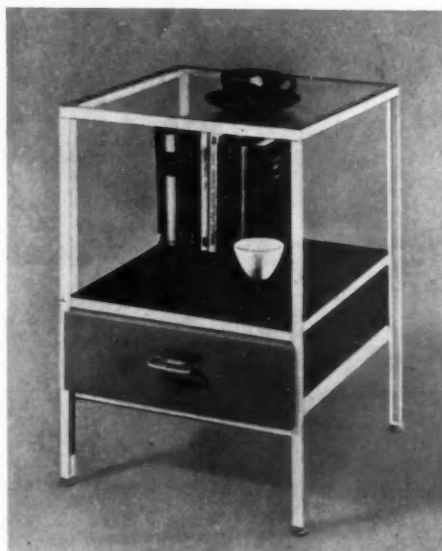
Aspen

A design conference at Aspen, Colorado, is an experience few of us have enjoyed. Earlier this year DESIGN was sent a programme, which looked inviting enough. It would last seven days, we were told; seven days packed with lectures and seminars in a mountain valley 7,800 ft high. We were told how to get there (a choice of state highways, airlines, railroads, buses and even taxis), what to wear—"Informality is the note at all times . . ."—to bring a bathing-suit and, amongst other things, some sturdy walking shoes. A bed-sitting-room (private bath) and kitchenette would cost us \$11 a night but a dormitory bed only \$2. But, as we could not afford the trip anyway we asked WILL BURTIN, a leading American designer and member of the Conference Committee, to send his impressions. Here are some of them:

"The purpose of the Fourth Aspen Design Conference on 'Planning — the basis of design' was to expose designers to principles of research, to ethics and ideas that have grown out of scientific procedure, and to find out about the place of these disciplines in design.

"Artists and designers are visual-minded people and their power over word language is often limited. It was therefore a pleasant experience to witness how quickly speakers and audience got together in understanding each other. The discussions developed on a level of mutual

NEW HERMAN MILLER FURNITURE



Two examples from the range of 'Steelframe' units, now to be seen at the Milan 'Triennale' exhibition. The frames are mass-produced in cold-rolled steel and welded to support, rather than enclose, the drawers and shelves made of wood. This skeletal technique, here employed by an accomplished designer, appears as an inevitable development from architectural engineering. Features of the range are the colour combinations available: orange and olive; blue and grey. The frames can be had in black or white enamel; if necessary the drawers can have a neutral finish for the customer to apply his own colours. Designed by George Nelson.



respect between designer and scientist. It became increasingly clear that they are but two faces of the same coin, and that attempts to separate art and science would lead to tragic consequences to both fields which need integration (cross-fertilisation), not further isolated specialisation.

"The first Conference day saw three demonstrations of how scientists look at the people to whom we communicate via design. The second day went closer to individual aspects of public receptivity and design. Merritt L. Kastens, from the Research Center of Stamford University, called for a more critical attitude towards existing design standards. Many design ideas are accepted without a critical investigation and assume in time the holiness of tradition, if not repudiated early. Dr Albert E. Parr, eminent marine biologist and director of New York's Museum of Natural History, made an eloquent plea for more basic study in the arts and sciences, and also of their relationship to each other. Both concern themselves with abstract or pure thoughts, with matters of spirit or principle, and it is from there that reality is transformed. This, he felt, is the essential job of the designer and the scientist.

Science before art

"The third day's speakers came directly into contact with design problems. One of the speakers, Dr Macleod, editor of *SCOPE*, the Upjohn Company, explained the scientist's need for clear visual demonstrations of facts, ideas and processes. Deploring the disdain with which the two disciplines of science and art have viewed each other, he pointed at a number of assumptions that have developed about each other and about themselves. An artist without factual knowledge – supplied by the scientist or his own research – is a mere arranger of visual form, which will soon lead him to excessive and ritualistic experimentation with form or technique as such, with little regard for their communicative meaning. This absence of research

he contrasted with those creative researchers in art and science who investigate form and substance constantly, to be certain that better or new knowledge is adequately presented and understood.

"The following evening's lecture – illustrated by slides – was given by architect Richard Neutra, on the subject of 'planned environment'. His astute and often humorous observations on what the average American associates with home, ease of living, technology, showed a deep understanding of causes and effects of a 'nomad' environment. Millions of people travel constantly across the country, but once arrived where they intend to stay a while, they generally expect their new house to look as if the Pilgrim Fathers had erected it, air-conditioned of course. This is in the first place a psychological problem which must be met with a positive attitude. We must substitute in our minds 'nomad' with 'dynamic', and work toward a solution in architectural planning that should be a fitting and inspiring environment for our people.

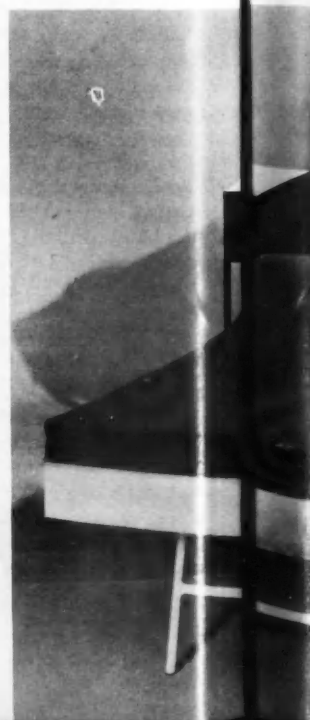
"Discussions of the fourth day centred around what we are doing to get better designs and designers. Architect Edgardo Contini, of Victor Gruen Associates, started the discussion with a vigorous attack on the 'conformist' in business and education. Designers must be more aggressive professionally, and more understanding businesswise, so that they can take those big jobs which go otherwise to the construction contractor who has a 'conformist' designer somewhere in the back room.

"The Conference concluded with the announcement that a permanent organisation has been formed, within the Aspen Institute for Humanistic Studies. Its purpose is the organisation of an annual international conference on design, for which preparations were started immediately. The plans include also the publication of an *avant-garde* bi-monthly magazine devoted to the advance and appreciation of design on a broad basis."



Armless sofa with a high, jointed back which folds forward to lie flat on the seat. The legs of chromium-plated casters can be detached and the complete sofa packed in a case 6 ft long by 1 ft high for transport. The upholstery is in rubber and the covering fabrics include Naugahyde and plastic cloth. Designed by Charles Eames.

New Herman Miller Furniture continued

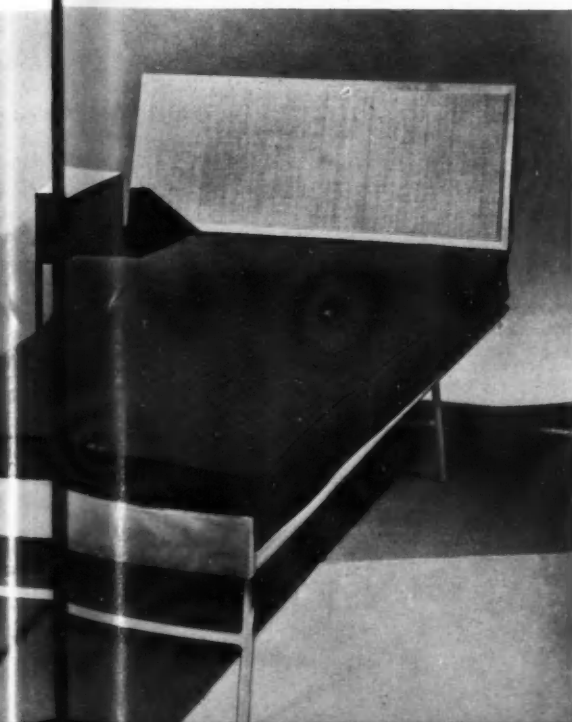




The cast aluminium bases of these tables recall early examples of cast iron furniture, and particularly school desks. Here the metal can be enamelled in black or white; the wooden table tops faced with rosewood or plastic within the birch surround. Designed by George Nelson.



Tubular steel supports are used for this bed with a birch frame and headboard with woven cane panel. Beds by first-rate modern designers are rare and few of them are as elegant and simple as this. Designed by George Nelson.



One of the familiar chairs by Eames, now mounted on a swivel shaft for office use. Remembering the original 'undercarriage' of steel rod (DESIGN June page 32) this solution appears to lack harmony between the seat and the base. Designed by Charles Eames.



NEWS

BIF 1955

British manufacturers, invited to exhibit in the London section of next year's BIF, have been told of substantial reductions in exhibiting costs for 1955. Recent negotiations with stand constructors have enabled British Industries Fair Ltd to take this further step in re-organising the London section of the Fair.

A stand of 384 square feet that this year cost £112 4s to build will next year cost £86 4s, following the introduction of a new basic charge for stand construction of 4s 6d a square foot. The larger stands will cost about the same as last year, but cuts are being made in the charges for electrical fittings and installation to all exhibitors. The cost of space remains at 6s 6d a square foot as in previous years.

Another change recently announced brings the London section together under one roof at Olympia. While the Fair is aimed at increasing British export trade, additional emphasis will next year be placed on products for the home market. Greater efforts are also being made to attract the public, who will be admitted every afternoon from 2 pm, and on one evening each week when the hours of opening are being extended until 9 pm.

Design training report

A report has been published by the Regional Advisory Council for Higher Technological Education (London and Home Counties) on design training for gold and silversmithing, enamelling, jewellery, die-sinking and kindred subjects. The report is realistic regarding present prospects for trained designers, and wisely recommends that recognised training centres should be few in number, but well equipped and staffed. Credit is given to the Goldsmiths' Company for its encouragement of patronage and public interest which has helped to keep the craft and its traditions alive.

'The Crafts Today' exhibition, held recently in London, designed by Leonard Daniels for the Arts and Crafts Exhibition Society. See 'Points and Pointers' page 10.



The report deals at some length with the subject of costume jewellery as a possible field for trained designers, and offers a number of useful suggestions. Here, as elsewhere in the report, the value of the Design and Research Centre is emphasised, together with the need for co-operation within the industry. Equally important, though not mentioned in the recommendations, is the need for close collaboration with all the other sections of the fashion trade.

The report is available from Tavistock House South, Tavistock Square, W.C.1.

Scandinavian report

The Design and Research Centre for the Gold, Silver and Jewellery industries has recently published, for private circulation, a report by L. W. Claydon on his visit to Scandinavia.

Mr Claydon was struck by the importance which the big silver firms attach to design. Most of them employ full-time designers, as well as commissioning architects and sculptors. One of the firms which Mr Claydon visited employs four full-time designers, and also has an apprentice school for pupils above 14 or 15 years of age.

The value of this policy is reflected in the high standard of silver-work to be found in Scandinavia. A less fortunate result is that manufacturers often find they possess a stock of designs that are too advanced for the public. These designs are kept in readiness for a time when they may become saleable, and many of the pieces that are now going into production were designed before or during the war.

Many firms predict that stainless steel will soon be in great demand and a few say that it will replace electro-plated nickel silver in America in a year or so. All point out that there are no production difficulties in making articles designed for stainless steel. Stainless steel is so different a metal from silver that a steel manufacturer should avoid copying silver designs. Steel is not suited to extensive detail work, but to designs in plainer style.

In jewellery, Mr Claydon notes that the pieces which have recently had increased sales in Scandinavia and abroad are in imitation Florentine and Victorian style. Even Georg Jensen's jewellery is mainly traditional and highly decorated. Original work is not lacking, however, and Sigurd Perrson has produced some pieces for special commission which attempt an elaborate symbolism.



Nautical pottery

Now used on the 'Orsova' and other new ships of the Orient Line, this earthenware has a decoration by Robert Jefferson, one-time student at the Royal College of Art. The table ware is made by Doulton & Co Ltd.

Cold staff changes

Paul Reilly, who has been Chief Information Officer of the Council of Industrial Design since April 1948, has been appointed Deputy Director in charge of the Industrial Division. His responsibilities will include the Council's relations with industry, its exhibition programmes, the promotion of 'Design Review' (the Council's illustrated record of well-designed goods in current production) and of the Record of Designers, through which manufacturers in search of qualified designers are put in touch with suitable candidates.

Mr Reilly has been succeeded in the Information Division by Mr J. Noel White, who has for the past six years been information officer of the Rural Industries Bureau. His responsibilities will include public and press relations, the approach to the retail trade and to educationists, and all publications including the Council's magazine DESIGN.

Mr Morris Brown, who was formerly on the editorial staff of the LONDON EVENING STANDARD, has been appointed Press Officer to the Council in place of Mrs M.-J. Lancaster, who has resigned to take up magazine editorial work. Miss Joyce Blow will continue as Assistant Press Officer.

Packing tools

The appointment is announced of W. M. de Majo as consultant designer to the Brades & Nash Tyzack Industries group, old-established makers of quality hand-tools.

Peter Boulton, managing director of the BNT group, which employs some 2,000 people in its factories, comments: "A survey of the American tool industry during many recent visits to the United States and attendance at the New York Hardware and Tool Exhibition have left a very deep impression that packing and presentation of British tools is just completely out of date. The days of the brown-paper parcel are dead. With rising costs of distribution it is essential for the manufacturers to assist the wholesaler in the first place with more easily handled cartons and multiple packs with contents clearly defined. The retailer should have modern packages that ease the work of his assistants selling tools from the shelves."

that have eye and sales appeal to the general public and, finally, these should be augmented by a range of counter display units or boxes of tools that become self-sellers."

Mr de Majo's immediate task will be the preparation of an overall design programme, concentrating on the presentation and packaging of over 2,000 different products.

Brighter annual reports

How many people read the annual report of a company in which they have invested? Owing to poor presentation the number is small, and E.M., a house magazine published by Edward Mortimer Ltd, suggests means of improvement.

More thought should be given to the reaction of the reader to whom the report is addressed says H. Newman, managing director of Newman Name Ltd. A good editorial and design standard can be achieved without excessive expenditure, and the readers' interest will be stimulated at the cost of a little time and care. Assistance may also be sought from an advertising agency, or from one of the industrial publishers which specialise in every aspect of annual report production.

In the USA there is each year an annual report competition which shows a high standard in its entries. A similar competition has now been organised in this country by THE ACCOUNTANT, which has recently made its first annual award.

SIA Exhibition

An exhibition of textiles and other work designed by members of the Society of Industrial Artists is to be held at the Cotton Board Colour, Design and Style Centre, Manchester, from November 30 for six to eight weeks.

Both woven and printed designs for all types of dress and furnishing fabric will be shown, together with examples of wall-papers, furniture, pottery, glass and other related products. The exhibition is being designed by Roger and Robert Nicholson.

Redesigned for reproductions

This new showroom for Ganymed Press London Ltd replaces an earlier setting for the reproductions which were then displayed in glass cases and on the wall. A. J. Milne was commissioned to redesign the area and provide more hanging space. Adjustable display screens can swing out on arcs to give variety in placing: on the walls metal battens are suspended and are capable of carrying the pictures at varying heights. Wallpapers are used extensively to give background variety.



Design: Number 71

Mobile homes abroad

Four special 'tropicalised' caravans have been ordered by the Anglo-Iranian Oil Company for the use of a geophysical gravity survey party in Tanganyika. The caravans were supplied by Pilgrim Mobile Units Ltd.

The units, which will serve as mobile homes and offices for the survey people, are designed to meet conditions both of climate and terrain in semi-tropical countries. Their fittings include a refrigerator, two bed settees, a chest of drawers, a collapsible table and a fold-away drawing- and map-board, two wardrobes, storage cupboard and lockers, and a toilet. The units are nearly 17 ft long by 7 ft wide.

Textiles in Oxford

The 'City of Lost Causes and Dreaming Spires' answered the call of industry when 150 representatives of textile firms recently attended the British Man-made Fibres Federation in Oxford. Most of them were housed in Christ Church, where at the opening dinner in the Great Hall Sir William Palmer and Mr Colton spoke about improving standards in textiles. Mr Gordon Russell's paper 'The Importance of Design' stressed the practical value of design in increasing sales. Mr Holden read a paper on 'Maintaining the Quality' which dealt with the basic requirements of a finished textile fabric - competitive price, pleasing design, adequate strength and durability.

Sir Ernest Goodale ranged over a wider field, and his paper 'The Evolution of Furnishing Fabrics' sketched the history of furnishings from the twelfth century to the twentieth. Confronted with the wealth of art which this period represents, many might feel oppressed by the weight of the past. But Sir Ernest regarded it rather as the springboard for the future, which he felt to be bright with promise, and his listeners were confidently carried from Palladio to the Paris Exhibition of 1925.

Obituary

IAN COLQUHOUN died suddenly in August. He was well-known to readers of DESIGN (his last article for the magazine appears in this issue) and as an architect, designer and writer he had already started on a most promising career. His tragic death was a great shock, bringing sorrow to all who knew him.



Ian Ernest Colquhoun was born in 1922, the son of the late G. R. E. Colquhoun and Marian D. Angus, and educated at Abberley Hall and Charterhouse. During the war he joined the Middlesex Regiment and served in the Near East. His training at the Architectural Association, which was begun in 1941 to 1942, was resumed after the war and he qualified in 1949 with an Honours Diploma. At the school he was an outstanding student with keen intellect and wide interests. In 1941 he was awarded the Howard Collis Travelling Scholarship and in 1948 the Building Centre prize. The latter took him to Holland to study brickwork and to write 'The Architecture of Brickwork in Holland' which was published in the Association's JOURNAL. With this he won the AA Essay Prize in 1949. Also in that year he joined a party from the British School at Rome exploring the ruins of the Roman city Leptis Magna, in North Africa. On the lighter side he was part author, with another student, James Dartford, of the esoteric and amusing AA Centenary pantomime in 1947.

Shortly after leaving the AA, Colquhoun was appointed to the staff of the Architects' Department at the Railway Executive. Much of his work there under Dr F. C. Curtis is recorded in his articles for DESIGN ('Design for Railways', November 1952, and 'How New Moquettes are Designed for British Railways', February 1953). For the new standard coaching stock he was responsible for designing moquettes, bringing with him the fresh inventiveness and good taste which were so sorely needed in this field. Throughout the work he collaborated closely with the staff designers at the weaving mills and produced modern patterns which, more than any others in the recent history of moquette, exploited the material's unsuspected qualities. Before leaving the Executive he assisted in the design of the Travel Centre for British Railways in Lower Regent Street (DESIGN December 1953).

This summer he began an exciting new venture with the Wall Paper Manufacturers Ltd. He was appointed architect to the Company in June and during the two months before his death he began to develop, at the London office, a new advisory department for architects. His first task was

to produce some of the designs for the new showroom, which had been already started, and supervise the construction.

Ian Colquhoun tackled all new jobs with energy and enthusiasm that were concealed by a natural modesty. His ability as a writer, experience as a designer and training as an architect were rare qualities with which he would almost certainly have become a fine critic of industrial design. His taste was decisive where modern work was concerned. At the same time architecture and designs of the immediate past had a particular fascination for him. His researches into the work of Lord Norman at Thorpe Lodge (see page 36) gave him immense pleasure.

To his friends Ian's death in his thirty-second year is a tragedy. Our deep sympathy goes to his wife, whom he married in 1950. They had a son and a daughter.

New Assistant Editor for DESIGN

Richard Rhodes has joined the staff of DESIGN as the second assistant editor. After leaving Oxford Mr Rhodes has been working on a book on Istanbul and is particularly interested in industrial design and the visual arts.

Duplicating

An excellently produced booklet takes the story of the well-known stencil duplicating firm, Gestetner Ltd, from its beginnings in the 'eighties to the present-day factory.

Yearbook

The British Standards 1954 'Yearbook' is now available and copies may be obtained from the BSI, British Standards House, 2 Park Lane, W1.

Tea container

This illustration shows the latest version of the 'Multiport', an insulated tea container developed from an emergency design produced during the war. Considerable experience was gained from the wartime models and as a result the manufacturer, James Stott & Co (Engineers) Ltd, has been able to incorporate many improvements based on recommendations made by a technical committee of the Tea Bureau. The improved specification has been accompanied by a better appearance. Construction is of stainless steel for the inner lining and outer casing, with vacuum insulation.



Folding caravan

The 'Tentavan' is the name of this new folding caravan produced by E. Edwards (Clifton, Bristol) Ltd. Constructed of hardboard on a wooden framework it is compact in appearance and very light in weight. The 'Tentavan' is simple to erect, all the parts being hinged together: the two sides of the hull open outwards revealing the two canvas bunks; the framework for the tent-top unfolds, the canvas cover being permanently attached. A folding table is included and storage lockers are incorporated beneath the bunks.

Colour for Glasgow

Most of our industrial towns are so lacking in colour that the British Colour Council did well to choose Glasgow for the 'Twelfth Designers' Conference' in September. Among the seventy-odd guests at the dinner in the Central Hotel there was a substantial sprinkling of Scotsmen. J. P. Glass, chairman of the Council's interior decoration division, presided, and R. A. Maclean, chairman of the Scottish Industries Exhibition Committee, was present, together with Alister Maynard representing the Scottish Committee of the Council of Industrial Design, John Anderson, managing director of James Templeton and Co Ltd, and others.

Mr Glass said that the British Colour Council had always enjoyed close contacts with Scotland, and that it was very interesting to see how many BCC members were showing at the 'Scottish Industries Exhibition'. One of the objects of the Council, as revealed in the Exhibition, was to have machinery painted in gay and exciting colours instead of the dull grey and black which were once so common. He contended that it was better for a machine attendant to look at a colourful machine than at "the frightful dark and dingy things" that existed in his day.

The main theme of the Conference was reached when Robert F. Wilson, art director of the BCC, talked about 'Colour in Theory and Practice'. He emphasised the dependence of colour upon light, a concept that might have seemed trite if he had not used colour charts and slides to show the six spectrum hues used at the BCC as a basis for all practical work. The second part of his talk was a commentary in slides illustrating schools, hospitals and a variety of factories in which the principles of colour had been put into practice.

During the remainder of the Conference two questions of interest were asked. "Can colour emphasis be accused of improving bad design by false expressionism, and therefore does colour help or hinder archi-

itecture?" J. L. Gleave did not give a precise answer to this, but he considered that colour was being used less and less to cover up indifferent materials.

The other question "Do all buyers and salesmen pass a test for colour blindness before being engaged?" received a clear negative answer from nearly everyone. But Rowland Jervis, display manager of Lewis's Royal Polytechnic, mentioned that colour tests had been used in his store, and had proved worth while.

Correction

DESIGN August page 20: We have been asked to state that the combined suction cleaner and floor polisher, produced by Fillery's (Great Britain) Ltd, was designed by Vactric Ltd, L. E. Wingfield being responsible for the external design.

Designers in this issue

M. Alton (23). Will Burtin (39). A. B. Cole, LSIA (21). Collett and Beadle (19). Leonard Daniels, ARIBA (10, 42). Charles Eames (40, 41). H. J. Gollins (23). J. J. Grant (22). Peter Hatch, MSIA (art editor). F. H. K. Henrion, MBE, FSIA (cover). Irwin Hoyland (10). Robert Jefferson (42). Georg Jensen (42). A. B. Kirkbride, BA (35). W. M. de Majo, MBE, MSIA (42). Alec McLeod (20). A. J. Milne, MSIA (43). George Nelson (39, 41). Robert Nicholson, MSIA (43). Roger Nicholson, ARCA, MSIA (43). W. H. Nicolson (19). Jack R. Notman (20). Michael O'Connell, MSIA (10). Ralph C. Ormiston, NDD (18). A. J. Shirley (36, 37). W. K. Shirley (38). Basil Spence, OBE, ARSA, FRIBA, FRAS, FSIA, and Partners (19, 24). Robert Stewart (28). J. H. Wakelin (37, 38). L. E. Wingfield, AIMechE, MSIA.

Designers' addresses may be obtained from the EDITOR.

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